



State of Utah

Department of
Natural Resources

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Division of
Oil, Gas & Mining

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October 15, 2004

CERTIFIED RETURN RECEIPT
7099 3400 0016 8896 0549

Dick Turner
Red Emerald, Inc.
3005 West Highway 6
Delta, Utah 84624

Subject: Initial Review of Notice of Intention to Commence Large Mining Operations, Red Emerald, Inc., Red Emerald Mine, M/001/058, Beaver County, Utah

Dear Mr. Turner:

The Division has completed our review of your draft Notice of Intention to Commence Large Mining Operations for the Red Emerald Mine, located in Beaver County, Utah, which was received July 26, 2004. After reviewing the information, the Division has the following comments which will need to be addressed before tentative approval may be granted.

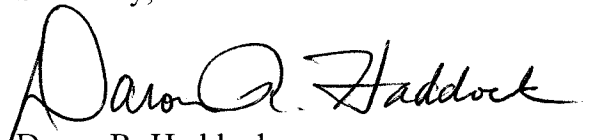
The comments are listed below under the applicable Minerals Rule heading. Please format your response in a similar fashion. **Please address only those items requested in the attached technical review. Please send replacement pages of the original mining notice using redline and strikeout text, so we can see what changes have been made. After the notice is determined technically complete and we are prepared to issue final approval, we will ask that you send us two copies of the complete and corrected plan. Upon final approval of the permit, we will return one copy stamped "approved" for your records. Please provide a response to this review by November 16, 2004.**

The Division will suspend further review of the Red Emerald Mine Notice of Intention until your response to this letter is received. If you have any

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questions in this regard please contact me at (801) 538-5325 or Tom Munson at 538-5321. If you wish to arrange a meeting to sit down and discuss this review, please contact us at your earliest convenience. Thank you for your cooperation in completing this permitting action.

Sincerely,

A handwritten signature in black ink that reads "Daron R. Haddock". The signature is fluid and cursive, with the first name "Daron" being more prominent than the last name "Haddock".

Daron R. Haddock
Permit Supervisor
Minerals Regulatory Program

DRH:TM:jb
Attachment: Review
cc: Ed Ginouves, BLM, Cedar City FO (UTU- 79716)
O:\M001-Beaver\M0010058-RedEmerald\final\1st-rev-10152004.doc

**INITIAL REVIEW OF NOTICE OF INTENTION TO COMMENCE
LARGE MINING OPERATIONS**

Red Emerald, Inc.
Red Emerald Mine

M/001/058
October 14, 2004

R647-4-104 – Operator's, Surface and Mineral Ownership

Please indicate the adjacent landowners on Map #1. (DJ)

R647-4-105 - Maps, Drawings & Photographs

105.2 Surface facilities map

The plan should contain a reclamation treatments map which should show areas to receive reclamation treatments shaded, cross-hatched or color coded to identify which reclamation treatments will be applied. Areas would include: buildings, roads, proposed drainage improvements or reconstruction, sedimentation control structures, topsoil storage areas, and disposal areas for overburden. Reclamation treatments may include, ripping, regrading, replacing soils, fertilizing, broadcast seeding. (DJ)

Map #5 indicates that an area of 4.7 acres will be recontoured with erosion control structures.

The lower mine area totals 4.7 acres. Does this notation indicate that this entire lower area, including highwall areas, is to be recontoured, ripped and seeded? (DJ)

Please show the approximate location of the erosion control structures. (DJ)

105.3 Drawings or Cross Sections (slopes, roads, pads, etc.)

The plan should contain a minimum of two cross-sections (one east-west, one north-south) showing the mine area before mining, after mining and after reclamation. (DJ)

R647-4-106 - Operation Plan

106.5 Existing soil types, location, amount

Please clarify the depth and extent of soil to be salvaged. The operation plan says topsoil within the new disturbance boundary is approximately 10 inches thick and that the topsoil will be stripped and stockpiled. Section 106.5, however, says the depth of soil material is 1-3 inches, and Section 106.6 says 1-12 inches of soil will be salvaged from three acres for a total of 2700 cubic yards (average 6.7 inches over 3 acres). (PBB)

Why is soil only being salvaged from three acres instead of the entire 6.1-acre site? (DJ & PBB)

106.6 Plan for protecting & redepositing soils

Please include in the plan a seed mix and a seeding plan for stabilizing the topsoil. The plan says the topsoil storage areas will be stabilized by seeding with 5 pounds/acre of grass seed. This seed needs to be applied in the fall on a freshly-prepared, rough surface. The Division recommends planting a mix of Indian ricegrass, Hycrest crested wheatgrass, and thickspike wheatgrass at the rate of 5 pounds pure live seed per acre *each* (total of 15 pounds PLS/acre). (PBB)

Item 3 in Section II-12 of the operations plan says, "If appropriate, suitable soil materials will be relocated and stockpiled for future reclamation of the site, prior to ground disturbance activities in areas not previously disturbed." Are there areas of the proposed mine that are not previously disturbed? Salvaging suitable soil is always appropriate; are there undisturbed areas where soil will not be saved? Section II-3 says the entire area of proposed mining falls within GMI's previously disturbed areas. (PBB)

The plan states that "where possible organic material or topsoil will be placed over all disturbed areas at a rate of 20 tons per acre."

Twenty tons per acre of organic material may be sufficient for the organic material but this amount will be insufficient for the placement of topsoil. Please state in the plan the anticipated depth of topsoil that will be placed over the reclaimed areas. (DJ)

106.7 Existing vegetation - species and amount

The ground cover survey contained in this plan indicates that no ground cover exists at the site. The area of the mine had recently been reclaimed by GMI and to date there was very little indication of any revegetation success.

Red Emerald will be required to attain the revegetation requirements that were required for revegetation success for GMI in areas affected by this operation. (DJ)

The plan needs to contain vegetation cover information by species. Since the mine site has been disturbed, this could be gathered from adjacent areas with similar aspects and soils. (PBB)

R647-4-107 - Operation Practices

107.1 Public safety & welfare

107.1.14 Posting warning signs

Warning signs indicating that mining is taking place at the site should be placed at or near the gate into the site.

Signs should also be placed at the fuel storage and explosive storage areas warning of the hazards of these areas. (DJ)

A blasting protocol sign should also be placed at the gate informing the public of the procedures being followed during blasting at the site. (DJ)

107.1.15 Constructing berms, fences, etc. above highwalls

The reclamation plan indicates that a fence will be placed above highwalls at the site.

To insure public safety, these fences should be constructed above the highwalls as they are formed. Please show on map #5 how this area will be accessed to construct this fence. (DJ)

107.2 Drainages to minimize damage

Control and diversion of surface water runoff around the mining activities is indicated in the plan.

Please show on the mine area maps, the number and where these diversions will be constructed. (DJ)

107.3 Erosion control & sediment control

The plan states that a siltation impoundment structure will be constructed at the base of the barren rock facility.

Please show the location of this structure and state in the plan Red Emerald's maintenance program for this impoundment. Also include in the plan a drawing showing how this feature will be constructed. (DJ)

107.4 Deleterious material safely stored or removed

Please show the location of the powder magazine, fuel storage and generator on a surface facilities map. Also please show the proposed final proposed location of the bunkhouse/office. (DJ)

R647-4-109 - Impact Assessment

109.4 Slope stability, erosion control, air quality, safety

The plan does not indicate the ultimate highwall height.

Please show in the plan the final height of this feature. (DJ)

R647-4-110 - Reclamation Plan

110.2 Roads, highwalls, slopes, drainages, pits, etc., reclaimed

A 51 degree highwall is proposed at the site. In order for the Division to approve leaving a highwall greater than 45 degrees, long term stability will need to be demonstrated. (DJ)

110.5 Revegetation planting program

The plan needs to clarify the revegetation success standards. Section 106.7 of the Notice says there is no vegetation and that the site was previously disturbed, but it needs to be vegetated so there is 70 percent of the cover that existed prior to disturbance. If the baseline data for the mine area itself does not exist, then data from adjacent areas can be used. See the requirement in Section 106.7 above. (PBB)

Item 8 in Section II-12 of the operation plan says that disturbed sites will be revegetated in accordance with Beaver River Resources Area Reclamation Standards and rule R647-2-109. (The correct reference is actually R647-4-111.13.) The Division is not familiar with the Beaver River Resources Area Reclamation Standards; please give further details if this is to be used as a revegetation standard. (PBB)

The operator plans to rip and seed the roads, but simply ripping the roads is likely to lead to accelerated erosion. The Division suggests that gouging the roads would be better for erosion control, and it would also better discourage continued use of the roads. Gouging is a technique where a trackhoe is used to create many depressions similar to a mogul-covered ski slope. (PBB)

The operator requests a variance which would allow the highwall area to be left at 51 degrees but does not request a variance from revegetation requirements. Will topsoil and manure be placed in the highwall areas? Will it be possible to roughen these steep slopes? Although ripping is not practical, it should be possible to roughen at least a portion of the slopes using a trackhoe. (PBB)

Please indicate how seed will be applied. If seed is to be broadcast (which may be necessary because of the steepness and because of the amount of large rock), it must be applied shortly after final surface preparation. The Division recommends applying seed as the surface is being prepared using something like a hurricane-type spreader mounted on the back of the dozer doing the ripping. (PBB)

The operator commits to seeding in the fall, and it is imperative that this occur. Other times are not acceptable. (PBB)

R647-4-111 - Reclamation Practices

111.6 All slopes regraded to stable configuration

The plan states that the barren rock facility will be resloped to an overall angle of 21 degrees.

The Division recommends that in order to assure long term stability of this dump structure the dump should be resloped to an overall angle of 18 degrees. (DJ)

111.7 Highwalls stabilized at 45 degrees or less

See comment in Section R647-4-110.2

111.8 All roads & pads reclaimed

Map #5 indicates that roads into the site will be ripped and seeded.

Portions of the access road contain areas of side cast material, a trackhoe will be needed to bring these portions of the road back to approximate original contours before these areas are seeded. Ripping these areas to remove the roads will not be sufficient. (DJ)

111.9 Dams & impoundments left self draining & stable

Please indicate the reclamation plan, if any, for the sediment impoundment. (DJ)

111.12 Topsoil redistribution

Map #5 of the plan indicates that the highwall area will be treated to reduce the visual impact and that topsoil will be hauled in to darken existing soils.

Please indicate what treatment will be used to reduce the visual effect and how it will be applied. (DJ)

Also indicate where the imported soils to be used to darken the existing soils will come from.

The items noted only on this map need to be included in the reclamation plan portion of the application. (DJ)

R647-4-112 – Variance

See comments in Section R647-4-110.2

R647-4-113 – Surety

The surety should contain a line item for the importation of soils. The plan should also indicate the amount of soil that will be imported. The distance to truck in this material should be included. (DJ)

The surety should contain a cost to tear down and haul off the bunkhouse/office at the site. (DJ)

A line item to cover the cost of the reclamation of the proposed erosion control structures and siltation pond should be included in the surety. (DJ)

The surety should contain a line item to cover the cost of contour ripping of the mine area prior to seeding. (DJ)

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Because the ultimate highwall height is not known, the cost to reduce the visual impact of this feature cannot be estimated. Until this information is received the cost included in the surety estimate cannot be verified. (DJ)

R647-4-115 - Confidential Information

No confidential information is contained in this application.